UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,413	06/17/2005	Derrick Diarmuid Robertson	36-1909	2356

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EXAMINER
YOUSSEF, ADEL Y

ART UNIT	PAPER NUMBER
2109	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/539,413</td><td>Applicant(s)
ROBERTSON ET AL.</td></tr>
<tr><td>Examiner
Adel Y. Youssef</td><td>Art Unit
2109</td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06/17/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *11/03/2005/ 04/02/2007*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.　　　Claims 1-4 and 7-9 are objected to because of the following informalities: Claims 1-4 and 7-9 are drawn to method claims. However, limitations therein appear to be drawn to apparatus limitations. For example, in Claim 1, "a first computer communicating to one…" should read "**communicating a first computer to one…**" Also, for example, in Claim 1, "each subsequent computer which receives a request message…" should read "**receiving from each subsequent computer a request message…**" Examiner suggests amending the remaining claims in a similar format .

　　　Appropriate correction is required.

　　　Claim 8 is objected to because of the following informalities: "publiclprivate" should read "public/private". In addition, Examiner will interpret the "/" as an "or" function. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.　　　The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

　　　A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public

use or on sale in this country, more than one year prior to the date of application for patent in the United

States.

3.   Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by

Schweinhart et al (U.S. PGPUB No: 20030032391) here in referred to as

Schweinhart.

Regarding claim 1, Schweinhart teaches a method of identifying a predetermined

number of computers within a computer network which satisfy one or more specified

conditions, the method comprising the steps of:

a first computer communicating to one or more of the computers in the network a

request message which includes said one or more specified conditions (see pages 4

and 5 paragraphs 49, 50, 55; Schweinhart teaches that a request message is based on

traffic load "conditions") and

a token value which is indicative of a number of computer devices to be located by

the message; each subsequent computer which receives a request message (see

page4, paragraph 52, Schweinhart teaches that a number of devices located by

message) processing the message by performing the following steps:

determining if it is able to satisfy the one or more conditions specified in the

request message (see pages 4 and 5, paragraphs 49, 50, 52, 55; Schweinhart teaches

determining if it is able to satisfy the addresses allocation and acknowledgement

message specified in the request message) and if so,

decrementing the token value within the message (page 8, paragraphs 96,

Schweinhart teach that token value implementation of a traffic profile, see figure 3) , and

then determining if the token value in the request message indicates that at least

one further computer device is required to be located and if so,

forwarding the message, or a plurality of daughter messages, on to a

subsequent computer device or devices within the computer network unless a restriction

criterion has been met. (Pages 4, 8, Paragraphs 52, 96, Schweinhart teaches

forwarding the message on to devices by satellite unless said packets are blocked).

Regarding claim 2, Schweinhart teaches a method as claimed in claim 1 wherein each

message includes a number of further hops permissible as a restriction criterion and

each time the message is newly received by a device it decrements the number of

further hops permissible until it reaches zero whereupon the restriction criterion is

deemed to have been met (Page 8, 14, Paragraphs 96, 97,163; Schweinhart teaches

that when zero is reached, packets are blocked).

Regarding claim 3, Schweinhart teaches a method as claimed in claim 1, wherein each

device maintains a probability associated with each neighbouring device and wherein

these probabilities are used to determine to which neighbouring device or devices a

message or messages is or are to be sent (page 3 paragraph 35, Schweinhart teaches

neighbouring (STs) 111, 113, 115 and 117 see figure 1).

Regarding claim 4, Schweinhart teaches a method as claimed in claim 3 wherein a device periodically requests certain of its neighbours to re-register with other devices in dependence upon the probabilities associated with its neighbouring devices (page 3 paragraphs 35, 37, 39).

Regarding claim 5, Schweinhart teaches a method of storing a data file in a computer network, the method comprising the steps of:

identifying a predetermined number of computers within a computer network which satisfy one or more specified conditions by: a first computer which has a copy of the data file to be stored communicating to one or more of the other computers in the network a request message which includes said one or more specified conditions (Page 2, paragraphs 16, 18, Schweinhart teaches that the packets are selectively stored in one of the plurality of queues includes scheduling the packet for transmission over a satellite communications)

and a token value which is indicative of a number of computer devices to be located by the message; each subsequent computer which receives a request message processing the message by performing the following steps:

determining if it is able to satisfy the one or more conditions specified in the request message and if so, reporting this fact back to the first computer (see pages 4 and 5 paragraphs 49, 50, 55; Schweinhart teaches that a request message is based on traffic load and also token protocol reports this fact back to the first computer) and decrementing the token value within the message (Page 8, Paragraphs 96, 97),

and then determining if the token value in the request message indicates that at least one further computer device requires locating by the message(see pages 4 and 5 ,paragraphs 49, 50, 52, 55 Schweinhart teaches sending a request message to the satellite 101 see figure1 and rate the request message by the addresses allocation and acknowledgement message) and if so,

forwarding the message, or a plurality of daughter messages, on to a subsequent computer device or devices within the computer network unless a restriction criterion has been met; generating a first plurality, corresponding to the identified predetermined number of computers, of erasure coded fragments from the data file such that any subset of the fragments which contains at least a smaller predetermined number of the first plurality of fragments can be used to recreate the data file (Pages 4, 8, Paragraphs 52, 96, Schweinhart teaches forwarding the message to devices by satellite unless said packets are blocked), and

transmitting each of the erasure coded fragments to a respective one of the identified computers for storage thereon; wherein at least one of the one or more specified conditions is that the computer has sufficient storage space available for storing one of said fragments. (Page 14, paragraphs 165, 167, 168, 170 and storing information #1007, 1005 storage device #1011 of figure 10).

Regarding claim 6, Schweinhart teaches a method as claimed in claim 5 wherein the discovery step further includes the steps of any one or more of the steps set out in claims 2 to 4 (Page 8, 14, Paragraphs 96, 97, 163 Schweinhart teaches that when zero

is reached, packets are blocked).

Regarding claim 7, Schweinhart teaches a method as claimed in claim 5 wherein each fragment is encoded before transmission to a respective identified computer. (pages 1 and 2 paragraphs 2, 6, 14, 15, 16, 17, 19; Schweinhart teaches that packet is scheduled for transmission over the satellite communications network according to the relative priority of the queue).

Regarding claim 8, Schweinhart teaches a method as claimed in claim 5 wherein each fragment is transmitted together with the public key of a public|private key combination belonging to a user attempting to store the data file. (Pages 2, 15; paragraphs 17, 18, 173; Schweinhart teaches that each of the terminals comprises a plurality of queues that are configured to store the packets; the plurality of queues is prioritized).

Regarding claim 9, Schweinhart teaches a method as claimed in claim 5 wherein the data file is first transmitted from a remote client device to a gateway computer which is on the other side of a firewall between the remote client device and the gateway server, the computer network within which the computers are to be identified also being located on the other side of the firewall to the remote client device. (Page 3, paragraphs 36, 37 see figure 1 and figure 10).

Regarding claim 10, Schweinhart teaches a computer network comprising a plurality of

computer devices having data connections such that each computer device within the

network can communicate with any other device within the network provided both

computers are running and correctly connected into the network, each device within the

network comprising:

a request generator for generating request messages each of which includes a

token value indicative of the number of other devices within the network to be identified

by the message and one or more specified conditions which each identified computer is

to satisfy (See pages 4 and 5, paragraphs 49, 50, 52, 55 Schweinhart teaches that sent

a request message to the satellite 101 see figure1, and the request message is based

on traffic load "conditions"); and

a request processor for processing received request messages by: determining if

it is able to satisfy the one or more conditions specified in the request message and if

so, decrementing the token value within the message(Page 8, Paragraphs 96, 97) and

identifying itself to the originator of the corresponding received request message (see

pages 4 and 5, paragraphs 49, 50, 52, 55; Schweinhart teaches determining if it is able

to satisfy the addresses allocation and acknowledgement message specified in the

request message) , and then,

determining if the token value in the request message indicates that at

least one further computer device requires locating by the message and if so,

forwarding the message, or a plurality of daughter messages, on to a subsequent

computer device or devices within the computer network unless a restriction criterion

has been met (Pages 4, 8, Paragraphs 52, 96, Schweinhart teaches that forwarding the

message on to devices by satellite unless said packets are blocked).

Regarding claim 11, Schweinhart teaches a computer device for forming part of a

computer network comprising a plurality of computer devices having data connections

such that each computer device within the network can communicate with any other

device within the network provided both computers are running and correctly connected

into the network, the device comprising:

a request generator for generating request messages each of which includes a

token value indicative of the number of other devices within the network to be identified

by the message and one or more specified conditions which each identified computer is

to satisfy (Page 2, paragraphs 16, 18, Schweinhart teaches that the packets are

selectively stored in one of the plurality of queues including scheduling the packet for

transmission over a satellite communications); and

a request processor for processing received request messages by: determining if

it is able to satisfy the one or more conditions specified in the request message(see

pages 4 and 5, paragraphs 49, 50, 52, 55; Schweinhart teaches determining if it is able

to satisfy the addresses allocation and acknowledgement message specified in the

request message), and if so,

decrementing the token value within the message and identifying itself to the

originator of the corresponding received request message (Page 8, 14, Paragraphs 96,

97, 163; Schweinhart teaches that when zero is reached packets are blocked), and

then determining if the token value in the request message indicates that at least one further computer device requires locating by the message(see pages 4 and 5 ,paragraphs 49, 50, 52, 55; Schweinhart teaches determining if it is able to satisfy the addresses allocation and acknowledgement message specified in the request message) and if so,

forwarding the message, or a plurality of daughter messages, on to a subsequent computer device or devices within the computer network unless a restriction criterion has been met (Pages 4, 8, Paragraphs 52, 96, Schweinhart teaches that forwarding the message to devices by satellite unless said packets are blocked).

4.   Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed to:**
Commissioner for patents
P.O.Box1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adel Y. Youssef whose telephone number is 571-270-3525. The examiner can normally be reached on Monday to Thursday 8am-5pm EST.
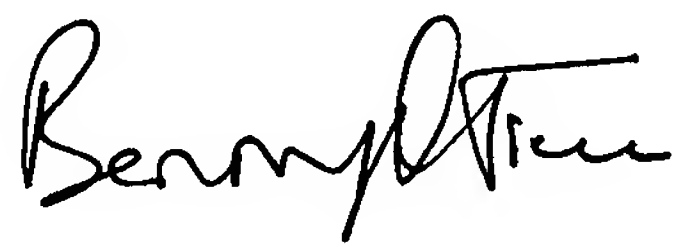
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BENNY TIEU can be reached on 571-272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ADEL YOUSSEF

UNIT#2109

09/12/2007

BENNY Q. TIEU

SPE/TRAINER